

WATER SUPPLY OUTLOOK

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United States
Department of
Agriculture

Soil
Conservation
Service

Spokane,
Washington



Water Supply Outlook for Washington

as of MAY 1, 1985



TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: "Snow scene along trail to Mt. Hood test site snow course"

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

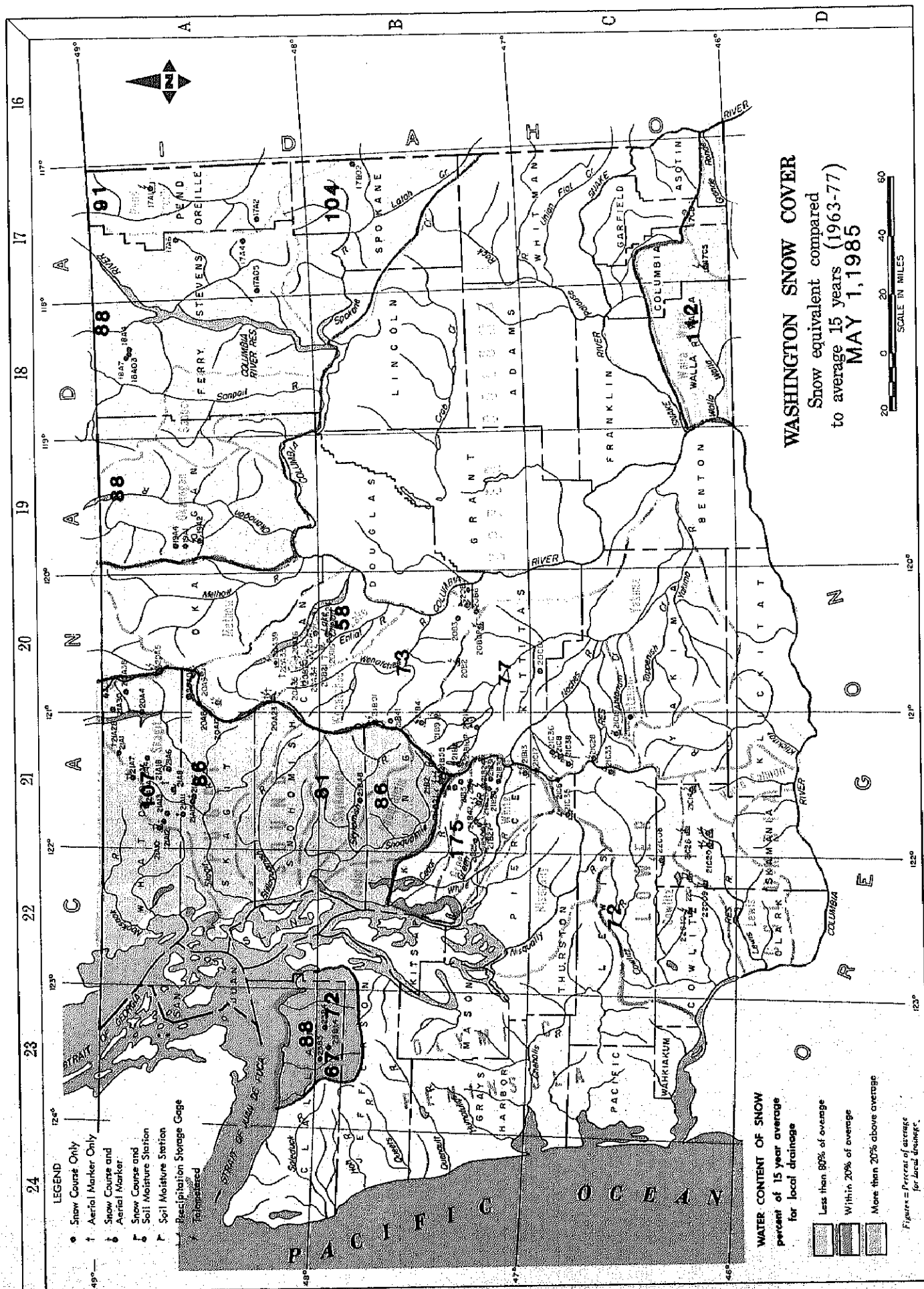
Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building 230 N. First Ave., Phoenix, Arizona 85025
Colorado (N. Mex.)	P.O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th St., Boise, Idaho 83702
Montana	P.O. Box 98, Bozeman, Montana 59715
Nevada	P.O. Box 4850, Reno, Nevada 89505
Oregon	1220 S. W. Third Ave., Portland, Oregon 97204
Utah	4402 Federal Bldg., 125 South State St., Salt Lake City, Utah 84147
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P.O. Box 2440, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES

Outlook reports prepared by other agencies include a report for California by the California Department of Water Resources, P.O. Box 388, Sacramento 95802 — for British Columbia by the Ministry of the Environment, Lands Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 — for Yukon by the Department of Indian and Northern Affairs, Northern Operations Branch, Whitehorse, Yukon Territory Y1A 3V1 — and for Alberta, Saskatchewan and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 St. Mary, Alberta T3C 1A6.



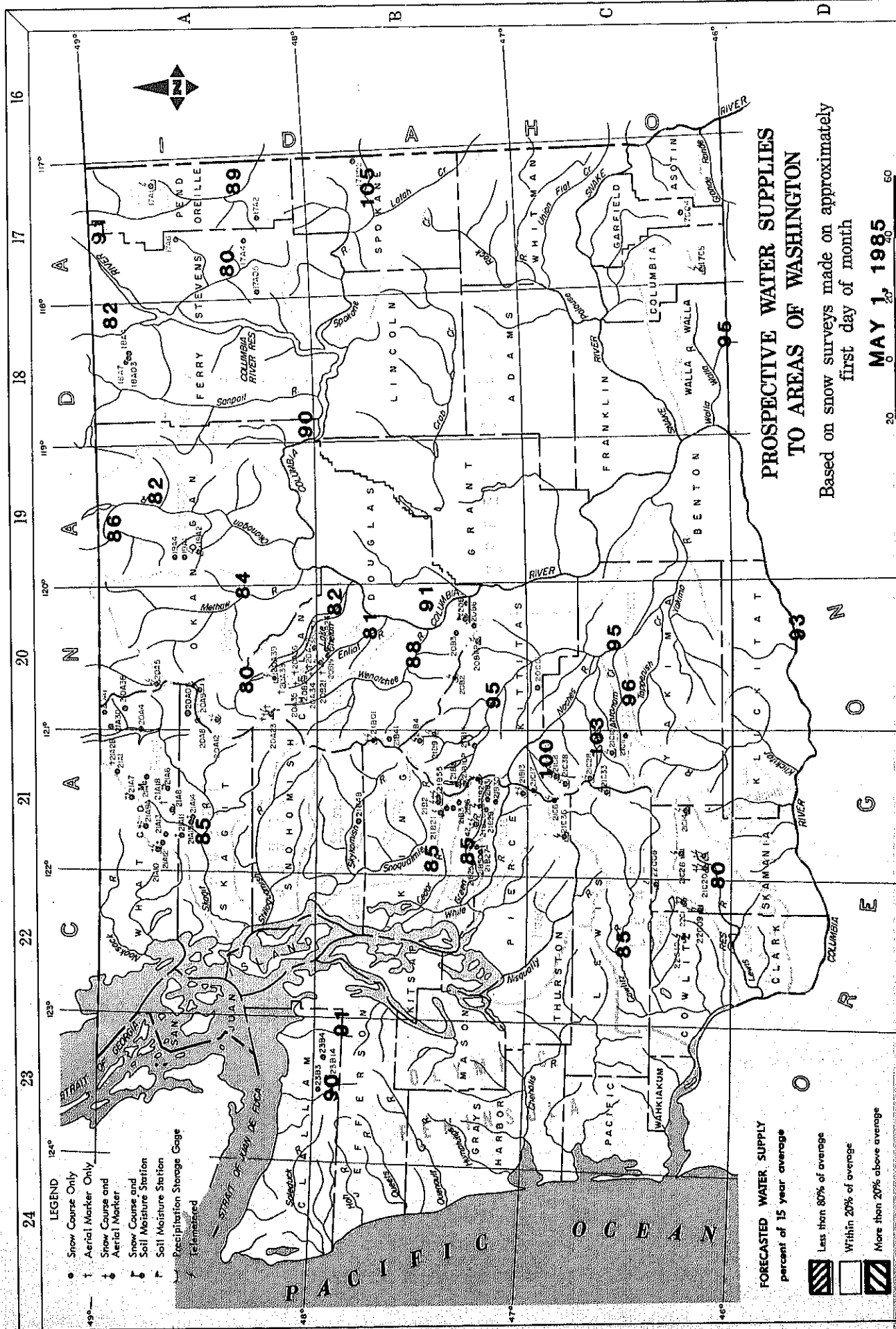


INDEX TO WASHINGTON SNOW COURSES, SOIL MOISTURE STATIONS AND PRECIPITATION STORAGE GAGES

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.	NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
UPPER COLUMBIA DRAINAGE						LOWER COLUMBIA DRAINAGE					
Pend Oreille River						Asotin Creek					
Boyer Mountain	17A2	7	31N	43E	5250	Spence Springs	17C4	9	8N	40E	5700
Bundgrass Meadow	17A1SP	24	37N	44E	5000	Touchet River					
Kettle River						Touchet No. 2	17C35P	6	7N	40E	5530
Summit G. S.	18A7	20	39N	35E	4600	Lewis River					
Run Creek	18A3	28	39N	35E	4070	June Lake	22C09SP	26	8N	5E	3200
Goat Creek	18A4	26	39N	35E	3595	Lone Pine Shelter	21C26SP	8	9N	7E	3800
Spokane River						Plains of Abraham	22C13SP	35	9N	5E	4400
Ragged Ridge	17B02	12	27N	45E	3333	Spencer Meadow	21C20SP	16	8N	7E	3400
Colville River						Surprise Lakes	21C13SP	14	7N	8E	4250
Bald	17A6	19	36N	42E	3215	Cowlitz River					
Stranger Mountain	17A5	26	31N	38E	4990	Coyote Pass	21C6	15	16N	10E	5300
Chevelish	17A4	11	32N	41E	4925	Pigtail Peak	21C33SP	11	13N	11E	5900
Okanogan River						Peloto Hill	21C14SP	36	10N	10E	4500
Mutton Creek No. 1	19A1	30	37N	24E	5700	Sheep Canyon	22C10SP	12	8N	4E	4050
Mutton Creek No. 2	19A4	19	37N	24E	6000	Strawberry	22C08SP	9	10N	6E	3280
Salmon Meadows	19A23SP	33	37N	24E	4500	Paradise Park (New)					
Methow River						21C35SP	13	15N	8E	5500	
Harts Pass	20A5SP	7	37N	18E	6500	White River					
Chelan Lake Basin						21B13SP	30	18N	11E	4000	
Lyman Lake	20A23SP	18	31N	16E	5900	Green River					
Park Creek Ridge	20A12SP	18	34N	16E	4600	21B24P	18	20N	11E	1800	
Rainy Pass	20A9SP	21	35N	17E	4780	Charley Creek	21B25	27	21N	9E	3200
Mirror Lake	20A39	30	31N	18E	5600	Cougar Mountain	21B42SP	21	21N	9E	3200
Entiat River						Grass Mountain No. 2	21B27	14	20N	8E	2900
Brief	20B19	34	28N	19E	1600	Grass Mountain No. 3	21B28	12	20N	8E	2100
Entiat Meadows	20A36	28	31N	17E	4540	Lester Creek	21B29	36	20N	10E	3100
Entiat River Trail	20A34a	22	29N	18E	4275	Lynn Lake	21B50	22	20N	8E	4000
Fox Camp	20A36a	17	30N	18E	4510	Sawmill Ridge	21B31	5	19N	11E	4700
Pope Ridge	20B20	22	29N	18E	3540	Stampede Pass	21B10SP	25	21N	11E	3860
Pope Ridge Snow Pillow	20B24SP	22	29N	18E	4725	Twin Camp	21B30	18	19N	11E	4100
Push Ridge	20A32a	34	30N	18E	6200	Cedar River					
Shady Pass	20A37	20	29N	19E	3910	21B3	10	21N	10E	2390	
Snow Brushy	20A35a	21	30N	17E	4900	21B21P	30	22N	10E	3300	
Tommy Creek	20B21a	10	28N	18E	4900	Snoqualmie River					
Wenatchee River						Alpine Meadow					
Berne-Mill Creek (New)	21B41SP	13	26N	14E	3240	21B48	31	27N	9E	3500	
Blewett Pass No. 2	20B2SP	35	22N	17E	4270	21B2P	19	22N	11E	3625	
Stevens Pass	21B1SP	14	26N	13E	4070	Olallie Meadows East	21B55SP	20	22N	11E	3700
Trough #2	20B25SP	10	20N	20E	5310	Skagit River					
Squitchuck Creek						21A4	35	39N	12E	2200	
Beehive Springs	20B3	12	21N	19E	4400	21A1	9	39N	12E	3680	
Stemilt Creek						21A2	26	40N	12E	4000	
Stemilt Slide	20B6	30	21N	20E	5000	20A4	34	38N	16E	5900	
Upper Wheeler	20B7SP	30	21N	20E	4400	20A1	14	40N	14E	3500	
Yakima River						20A38	8	40N	16E	5000	
Ahtanum R. S.	21C11	24	12N	14E	3100	20A36	25	36N	16E	3500	
Big Boulder Creek	21B9SP	35	23N	14E	3200	20A8	19	40N	14E	1900	
Bumping Lake	21C9P	23	16N	12E	3450	20A30	10	35N	14E	4200	
Bumping Lake New	21C96	13	16N	12E	3400	LEGEND					
Bumping Ridge	21C98SP	9	15N	12E	4600	21A7	Snow Course Only				
Fish Lake	21B4SP	28	24N	14E	3371	21A7a	And Aerial Marker				
Green Lake	21C10SP	3	12N	13E	6000	21A7b	Snow Course And Aerial Marker				
Grouse Camp	20B11SP	29	21N	19E	5385	21A7M	Snow Course And Soil Moisture Station				
Lake Cle Elum	21B14M	15	20N	14E	2200	21A7P	Soil Moisture Station				
Morse Lake	21C17SP	6	16N	11E	2450	21A7P	Snow Course And Precipitation Storage Gage				
Tunnel Avenue	21B8P	13	21N	11E	2450	21A7SP	Snow Course And Precipitation Storage Gage				
White Pass (East Side)	21C28SP	2	13N	11E	4500						

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Baker River					
Dock Butte	21A11A	8	36N	8E	3800
Easy Pass	21A7A	19	36N	11E	5200
Jasper Pass	21A6A	17	38N	11E	5400
Marion Lake	21A9A	23	38N	18E	5600
Moody Bluff	21A18a	22	38N	10E	5100
Rocky Creek	21A12AP	20	37N	8E	3400
Schubert Meadow	21A10AP	18	37N	8E	3400
S. F. Thunder Creek	21A14A	20	36N	9E	2200
Sidpur Creek	21A13	22	37N	8E	1600
Three Mile Creek	21A15	18	36N	9E	1600
Watson Lakes	21A8P	25	37N	9E	4500
<hr/>					
OLYMPIC PENINSULA					
Dungeness River					
Deer Park	23B4	1	28N	5W	5200
<hr/>					
Elwha River					
Hurricane	23B3	36	27N	7W	4500
<hr/>					
Cox Valley	23B14	31	29N	6W	4500

LEGEND
 21A7 Snow Course Only
 21A7a And Aerial Marker
 21A7b Snow Course And Aerial Marker
 21A7M Snow Course And Soil Moisture Station
 21A7P Soil Moisture Station
 21A7P Snow Course And Precipitation Storage Gage
 21A7SP Snow Course And Precipitation Storage Gage



INDEX to WASHINGTON SNOW COURSES, SOIL MOISTURE STATIONS and PRECIPITATION STORAGE GAGES

SOIL MOISTURE STATIONS and PRECIPITATION STORAGE GAUGES											
NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.	NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
UPPER COLUMBIA DRAINAGE											
Pend Oreille River											
Boyer Mountain	17A2	7	31N	43E	5250	LOWER COLUMBIA DRAINAGE					
Bunchgrass Meadow	17A15P	24	37N	44E	5000	Asotin Creek					
Kettle River						17C4					
Summit G. S.	18A7	20	39N	35E	4600	Touchet River					
Butte Creek	18A3	28	39N	35E	4070	17C35P					
Goat Creek	18A4	26	39N	35E	3595	Lewis River					
Spokane River						22C09SP					
17B02						21C2A5P					
17B02						22C15P					
17B02						21C20SP					
17B02						21C135P					
17B02						Coyote Pass					
17B02						Signal Peak					
17B02						Paradise Park					
17B02						21C33SP					
17B02						22C10SP					
17B02						22C08SP					
17B02						Cowlitz River					
17B02						21C6					
17B02						21C33SP					
17B02						21C14SP					
17B02						22C10SP					
17B02						22C08SP					
17B02						Coyote Pass					
17B02						Signal Peak					
17B02						Paradise Park					
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17B02						21C6					
17B02						21C33SP					
17B02						21C14SP					
17B02						22C10SP					
17B02						22C08SP					

WATER SUPPLY OUTLOOK FOR WASHINGTON

and

FEDERAL-STATE-PRIVATE COOPERATIVE SNOW SURVEYS

ISSUED BY

PETER C. MYERS

Chief

**SOIL CONSERVATION SERVICE
WASHINGTON, D.C.**

RELEASED BY

LYNN A. BROWN

**STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
SPOKANE, WASHINGTON**

FORECASTS BY

**SOIL CONSERVATION SERVICE
WATER SUPPLY FORECASTING STAFF, WNTC
PORTLAND, OREGON
and
NATIONAL WEATHER SERVICE
RIVER FORECAST CENTER
PORTLAND, OREGON**

REPORT PREPARED BY

WILLIAM F. WELLER, Hydrologist

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**SOIL CONSERVATION SERVICE
360 U.S. COURTHOUSE
SPOKANE, WASHINGTON 99201**

WATER SUPPLY OUTLOOK

State of Washington

MAY 1, 1985

The spring snowmelt is underway throughout the state. The cold, dry trend established in early January gave way to a warm, dry April over most of Washington. Water supply forecasts for May 1 include some downward forecasts for the Columbia River and its tributaries that drain the east slopes of the Cascade Mountain Range. Precipitation for April continued to be below average. Above average temperatures for April have increased streamflows to above normal. Reservoir storage has increased to near average for the May 1 report.

SNOW COVER

May 1 snow cover has been reduced slightly from that measured April 1st. Snow cover is still showing above average for the Spokane, Blue Mountains and the Green River Watersheds. The east slopes of the Cascades snow cover continued to decline to less than 80% of average. Ahtanun Creek and the Entiat River continue below average with snow cover of 50% and 58%.

PRECIPITATION

Precipitation was below average over most of the state, with the exception of the Yakima River at 111% of normal and the northwest slopes of the Cascades at 118% of average. Northeastern Washington had 58% of average, while the North Central area had 33%. The lowest amount of precipitation fell in the North Central area with .29 inches during April. The southwest side of the Cascades was also below average with the south at 80%.

RESERVOIR STORAGE

Washington's stored water supplies are good within the irrigated sections of the state. Above normal temperatures have increased area streamflows. Irrigation reservoirs are storing 718,600 acre feet of water in the Yakima. 95% of normal. The reservoirs in the Okanogan area are at 95% of capacity. Lake Chelan at 202,800 acre feet, reservoirs in the Skagit area are at 66% of

STREAMFLOW

Warm temperature during April started the spring runoff. Streams in the state had the following average flows for April; the Pend Oreille River at 103%, Spokane River at 128%, Yakima River at 130%, the Wenatchee River at 124%, the Walla Walla River had 134%, the Cowlitz River had 143%. Temperatures have been near or above average. The following stations reported below average for April, Spokane +2, Astoria +1, and Seattle -2. The Okanogan area was 5 degrees above average.

Forecasted streamflows for streams in the Columbia River have been reduced for all areas except the Yakima River and its tributaries. Some of the streams having reduced forecasted flows include the Colville from 84% to 80%; Pend Oreille from 93% to 89%; Okanogan from 97% to 82%; the Cowlitz from 90% to 85%; the Wenatchee from 96% to 88%; and the Spokane from 111% to 105%..

STREAMFLOW FORECASTS - MAY 1985

THE FOLLOWING SUMMARIZED RUNOFF FORECASTS ARE BASED PRINCIPALLY ON MOUNTAIN SNOW COVER AND ON THE ASSUMPTION THAT PRECIPITATION AND TEMPERATURE WILL BE NEAR AVERAGE FROM THE PRESENT TIME TO THE END OF THE FORECAST PERIOD. APPRECIABLE DEVIATIONS FROM NORMAL TEMPERATURE AND/OR PRECIPITATION WILL CORRESPONDINGLY MODIFY THESE FORECASTS. THESE FORECASTS ARE MADE AS A PRODUCT OF THE COOPERATIVE EFFORTS OF THE SOIL CONSERVATION SERVICE AND THE NATIONAL WEATHER SERVICE. STREAMFLOW FIGURES FOR 1982-1984 ARE PRELIMINARY AND SUBJECT TO REVISION.

SEASONAL STREAMFLOW IN THOUSANDS OF ACRE-FEET							
BASIN, STREAM AND STATION	FORECAST RUNOFF 1985	% 20-YR. AVG.	FORECAST PERIOD	1984	1983	1982	20-YR AVERAGE 61-80

COLUMBIA RIVER SYSTEM		/1/					
COLUMBIA RIVER	37800	91	MAY-SEPT	36730	39759	46400	41733
AT BIRCHBANK	29700	90	MAY-JULY	27900	31103	36040	32833
	20800	90	MAY-JUNE	18200	20815	25280	23155
COLUMBIA RIVER	54300	90	MAY-SEPT	55800	58780	48085	60100
AT GRAND COULEE	44900	91	MAY-JULY	45250	39475	35480	49400
	33900	91	MAY-JUNE	32750	27745	24270	37300
COLUMBIA RIVER	59300	90	MAY-SEPT	59450	61910	73340	65550
BL ROCK ISLAND	49400	91	MAY-JULY	48750	50740	60580	54375
	37500	91	MAY-JUNE	35350	36625	43300	41160
COLUMBIA RIVER	81800	93	MAY-SEPT	92100	89225	105105	88290
AT THE DALLES	68400	93	MAY-JULY	77066	73820	88233	73760
	53300	93	MAY-JUNE	59000	55580	66725	57360
PEND OREILLE RIVER SYSTEM							
PEND OREILLE	14000	91	APR-SEPT	12980	12841	17721	15425
BL. BOX CANYON	12800	90	APR-JULY	11780	11482	16324	14156
	11000	90	APR-JUNE	9895	9226	13306	12227
KETTLE RIVER SYSTEM							
KETTLE RIVER	1300	82	MAY-SEPT	2027	2194	2131	1581
NR LAURIER	1220	82	MAY-JULY	1915	2019	1975	1491
	1090	82	MAY-JUNE	1592	1736	1548	1334
COLVILLE RIVER	107	80	APR-SEPT	243	182	160	134
AT KETTLE FALLS	98	80	APR-JULY	221	161	161	123
	91	80	APR-JUNE	197	144	132	114

/1/ OBSERVER FLOW CORRECTED FOR STORAGE IN ANY OF THE RESERVOIRS WHICH ARE ABOVE THE STATION: MONTENAY, FLATHEAD LAKE, PEND OREILLE LAKE, COEUR D'ALENE LAKE, BROWNLEE, NO ROOSEVELT LAKE.

SEASONAL STREAMFLOW IN THOUSANDS OF ACRE-FEET							
BASIN, STREAM AND STATION	FORECAST RUNOFF 1985	% 20-YR. AVG.	FORE- CAST PERIOD	1984	1983	1982	20-YR AVERAGE 61-80
SPOKANE RIVER SYSTEM							
SPOKANE RIVER	2090	105	MAY-SEPT	1942	1621	1236	1988
AT POST FALLS/2/	1960	105	MAY-JULY	1828	1445	1069	1884
OKANOGAN RIVER SYSTEM							
SIMILKAMEEN R.	1220	86	MAY-SEPT	1131	1366	1592	1376
NR NIGHTHAWK	1138	86	MAY-JULY	1033	1232	1445	1279
	955	86	MAY-JUNE	811	1031	1120	1075
OKANOGAN RIVER	1244	82	MAY-SEPT	1531	1903	1921	1517
NR TONASKET	1150	82	MAY-JULY	1335	1624	1587	1370
	950	82	MAY-JUNE	1022	1302	1181	1135
METHOW RIVER SYSTEM							
METHOW RIVER	755	84	MAY-SEPT	891	1187	1133	900
NR PATEROS	695	84	MAY-JULY	801	1076	1050	828
	580	84	MAY-JUNE	637	927	848	693
CHELAN RIVER SYSTEM							
CHELAN RIVER	900	82	MAY-SEPT	994	1120	1301	1094
AT CHELAN /3/	776	82	MAY-JULY	861	963	1148	946
	588	82	MAY-JUNE	603	760	883	717
STEHEKIN RIVER	690	80	APR-SEPT	736		938	860
AT STEHEKIN	580	80	APR-JULY	608	727	800	727
	440	80	APR-JUNE	411	572	603	553
ENTIAT RIVER	190	81	APR-SEPT	231	292	282	235
NR ARDENVOIR	170	80	APR-JULY	207	263	258	213
	138	80	APR-JUN	152	221	206	172
WENATCHEE RIVER SYSTEM							
WENATCHEE RIVER	1000	88	APR-SEPT		GAGE ABANDONED		1136
NR PLAIN	880	88	APR-JULY				1001
	673	88	APR-JUNE				899
WENATCHEE RIVER	1370	90	MAY-SEPT	1107	1375	1860	1523
AT PESHASTIN	1220	90	MAY-JULY	951	1217	1638	1356
	943	90	MAY-JUNE	588	976	1276	1048
STEMILT BASIN	*121	88	MAY-SEPT		GAGE ABANDONED		**138
NR WENATCHEE							
ICICLE CREEK	322	87	APR-SEPT		GAGE ABANDONED		**370
NR LEAVENWORTH	296	87	APR-JULY				**340
	235	87	APR-JUNE				**270

* THOUSANDS OF MINERS' INCHES.

** AVERAGE COMPUTED FOR 1963-1977.

/2/ FORECASTS MADE BY JERRY BEARD, SOIL CONSERVATION SERVICE, BOISE, IDAHO. OBSERVED FLOW CORRECTED FOR STORAGE IN COEUR D'ALENE LAKE.

/3/ OBSERVED FLOW CORRECTED FOR STORAGE IN LAKE CHELAN.

SEASONAL STREAMFLOW IN THOUSANDS OF ACRE-FEET							
BASIN, STREAM AND STATION	FORECAST RUNOFF 1985	% 20-YR. AVG.	FORE- CAST PERIOD	1984	1983	1982	20-YR AVERAGE 61-80
YAKIMA RIVER SYSTEM							
YAKIMA RIVER	108	95	MAY-SEPT	113	89	135	114
NR MARTIN /4/	98	95	MAY-JULY	104	76	120	103
	82	95	MAY-JUNE	87	61	104	86
YAKIMA RIVER	733	94	MAY-SEPT	798	752	985	780
AT CLE ELUM /5/	651	94	MAY-JULY	707	596	895	693
	540	94	MAY-JUNE	560	488	768	574
YAKIMA RIVER	1625	95	MAY-SEPT	1652	1737	2070	1711
NR PARKER /6/	1435	95	MAY-JULY	1432	1489	1846	1510
	1210	95	MAY-JUNE	1152	1249	1569	1274
KACHESS RIVER	93	95	MAY-SEPT	102	81	116	98
NR EASTON /7/	87	95	MAY-JULY	91	71	108	92
	74	95	MAY-JUNE	74	60	92	78
CLE ELUM RIVER	380	95	MAY-SEPT	395	372	470	400
NR ROSLYN /8/	342	95	MAY-JULY	350	324	422	360
	276	95	MAY-JUNE	263	263	346	291
BUMPING RIVER	126	100	MAY-SEPT	122	126	147	126
NR NILE /9/	114	100	MAY-JULY	112	115	134	114
	91	100	MAY-JUNE	87	94	109	91
AMERICAN RIVER	125	101	APR-SEPT	114	157	140	124
NR NILE	114	101	APR-JULY	104	144	130	113
	95	101	APR-JUNE	81	120	109	94
TIETON RIVER/10/	220	103	MAY-SEPT	219	250	250	214
AT TIETON DAM	180	103	MAY-JULY	172	203	211	175
	137	103	MAY-JUNE	124	157	164	133
NACHES RIVER	750	103	MAY-SEPT	656	762	982	728
NR NACHES /11/	664	103	MAY-JULY	594	689	902	645
	546	103	MAY-JUNE	470	584	717	530
AHTANUM CREEK	45	96	APR-SEPT	34	67	62	47
NR TAMPICO /12/	37	95	MAY-SEPT				39
	41	95	APR-JULY	29	61	58	43
	36	97	APR-JUNE	24	54	51	37

- /4/ OBSERVED FLOW CORRECTED FOR STORAGE IN LAKE KEECHELUS.
- /5/ OBSERVED FLOW CORRECTED FOR STORAGE IN KEECHELUS, KACHESS,
AND CLE ELUM LAKES AND DIVERSION BY KITTITAS CANAL.
- /6/ OBSERVED FLOW CORRECTED FOR STORAGE IN KEECHELUS, KACHESS,
CLE ELUM, BUMPING, AND RIMROCK LAKES AND DIVERSIONS BY ROSA,
UNION GAP, NEW RESERVATION, OLD RESERVATION AND SUNNYSIDE
CANALS.
- /7/ OBSERVED FLOW CORRECTED FOR STORAGE IN LAKE KACHESS.
- /8/ OBSERVED FLOW CORRECTED FOR STORAGE IN LAKE CLE ELUM.
- /9/ OBSERVED FLOW CORRECTED FOR STORAGE IN BUMPING LAKE.
- /10/ OBSERVED FLOW CORRECTED FOR STORAGE IN RIMROCK LAKE.
- /11/ OBSERVED FLOW CORRECTED FOR STORAGE IN BUMPING AND RIMROCK
LAKES AND DIVERSIONS BY TIETON, SELAH VALLEY, WAPATOX
CANALS AND CITY OF YAKIMA.
- /12/ OBSERVED FLOW OF NORTH AND SOUTH FORKS (COMBINED).

SEASONAL STREAMFLOW IN THOUSANDS OF ACRE-FEET							
BASIN, STREAM AND STATION	FORECAST RUNOFF 1985	% 20-YR. AVG.	FORE- CAST PERIOD	1984	1983	1982	20-YR AVERAGE 61-80

LOWER COLUMBIA RIVER SYSTEM							
MILL CREEK	16.6	95	APR-SEPT	23.46	13.48	24.62	**17.50
AT WALLA WALLA	16.5	95	APR-JULY	23.08	13.39	24.48	**17.33
	16.3	95	APR-JUNE	22.24	13.36	21.63	**17.15
LEWIS RIVER	720	80	MAY-SEPT	959	928	816	900
AT ARIEL /13/	590	80	MAY-JULY	816	719	676	737
	490	80	MAY-JUNE	687	494	573	612
COWLITZ RIVER	1375	85	MAY-SEPT	1696	1559	4545	1617
BL MAYFIELD DAM	1150	85	MAY-JULY	1479	1378	1572	1357
/14/	920	85	MAY-JUNE	1189	1048	1331	1081
COWLITZ RIVER	1750	85	MAY-SEPT	3117	1998	1918	2058
AT CASTLE ROCK	1450	85	MAY-JULY	2714	1575	1626	1708
/14/	1160	85	MAY-JUNE	2204	1119	1343	1365
OLYMPIC PENINSULA							
DUNGENESS RIVER SYSTEM							
DUNGENESS RIVER	146	91	APR-SEPT		197	196	160
NR SEQUIM	118	91	APR-JULY		158	163	130
	88	91	APR-JUNE		117	117	97
ELWHA RIVER SYSTEM							
ELWHA RIVER	500	90	APR-SEPT	469	538	607	**553
NR PORT ANGELES	410	90	APR-JULY	383	448	512	**454
PUGET SOUND							
SKAGIT RIVER SYSTEM							
AT NEWHALEM /15/	2000	85	APR-SEPT	1378	1531	1880	**2356
	1675	85	APR-JULY	997	1061	1439	**1972
	1260	85	APR-JUNE	621	698	1004	**1485
GREEN RIVER SYSTEM							
GREEN RIVER BL	270	85	APR-SEPT	275	190	227	**316
HOWARD HANSEN DAM	240	85	APR-JULY	243	145	195	**284
/16/	215	84	APR-JUNE	217	107	174	**256
CEDAR RIVER SYSTEM							
CEDAR RIVER	79	85	APR-SEPT	86	66	80	**93
NR CEDAR FALLS							

/13/	OBSERVED FLOW CORRECTED FOR STORAGE IN LAKE MERWIN, YALE AND SWIFT RESERVOIRS.						
/14/	OBSERVED FLOW CORRECTED FOR STORAGE IN RIFFE LAKE AND MAYFIELD RESERVOIR.						
/15/	OBSERVED FLOW CORRECTED FOR STORAGE IN DIABLO, ROSS AND GORGE RESERVOIRS.						
/16/	OBSERVED FLOW CORRECTED FOR STORAGE IN HOWARD HANSON DAM.						

COMPARISON OF SNOW COVER WITH THAT OF PREVIOUS YEARS

The following tabulation of washington stream basins presents the water content of the snow about MAY 1, 1985, as percent of the same date in 1984 and average of record.

Tributary Basin	No. of Courses	1985 Snow Water Expressed as percent of	
		1984	Average 1961-80
<u>UPPER COLUMBIA BASIN</u>			
Pend Oreille	9	108	91
Kettle	2	89	88
Colville	0		
Spokane	4	152	104
Okanogan	20	99	88
Methow	1		
Chelan			
Entiat	3	91	58
Wenatchee	7	123	73
Yakima	9	118	77
Ahtanum	1		
<u>LOWER COLUMBIA BASIN</u>			
Mill Creek	1		112
Cowlitz	1	81	72
<u>PUGET SOUND</u>			
White	0		
Green	8	157	175
Snoqualmie	1	144	86
Skykomish	2	112	81
Skagit	11	147	86
Baker	9	138	107
<u>OLYMPIC PENNINSULA</u>			
Morse	1	107	88
Elwha	1	104	67
Dungeness	1	136	72

RESERVOIR STORAGE - 1000 Acre Feet

BASIN OR STREAM	RESERVOIR	USABLE ^{1/} CAPACITY	1985	Measured (MAY 1) 1984	1983	Normal*
<u>COLUMBIA</u>						
Spokane	Coeur d'Alene Lake	225.1	214.6	230.8	182.3	238.4
Columbia	Franklin D. Roosevelt Lake	5232.0	947.3	2222.3	523.4	867.8
Columbia	Banks Lake	714.9	645.4	405.6	650.7	442.8
Okanogan	Conconully Reservoir	13.0	13.0	13.0	13.0	7.7
Okanogan	Conconully Lake	10.5	9.8	10.4	10.4	8.0
Chelan	Lake Chelan	676.1	202.8	261.7	281.0	219.0
<u>YAKIMA</u>						
Yakima	Keechelus Lake	157.8	126.9	147.0	139.6	113.8
Kachess	Kachess Lake	239.0	200.7	230.0	227.0	194.2
Cle Elum	Lake Cle Elum	436.9	258.5	403.0	393.2	295.9
Bumping	Bumping Lake	33.7	17.2	21.2	8.8	11.6
Tieton	Rimrock Lake	198.0	115.3	184.8	148.3	136.6
<u>PUGET SOUND</u>						
Skagit	Ross Reservoir	1404.1	468.2	887.3	712.9	754.4
Skagit	Diablo Reservoir	90.6	84.6	83.8	88.0	85.7
Skagit	Gorge Reservoir	9.8	8.0	7.5	8.4	8.0

^{1/} Based on Active Storage
Average 1963-1977

PRECIPITATION 1/

Division Average Observations and Departures

Drainage Divisions	Fall		Winter		Spring	
	Sept-Oct Observed	1984 <u>2/</u> Departure	Nov. 1984 - Observed	Mar. 1985 <u>2/</u> Departure	Apr- Observed	1985 Departure
Northeastern Wash	1.83	-0.65	9.02	-0.23	0.47	-0.77
Southeastern Wash	2.22	-0.29	10.00	-0.20	0.82	-0.64
East Slope Cascades	3.24	-1.51	20.04	-7.31	2.05	+0.20
North Central Wash	1.54	-0.05	4.78	-1.58	0.29	-0.57
Northwest Cascades	11.98	-1.23	40.18	-15.1	6.89	+1.07
Southwest Cascades	8.89	-4.59	28.96	-11.51	3.29	-0.82

Northeastern Washington	- Lower Spokane, Colville, Sandpoil, and - Lower Kettle Drainages
Southeastern Washington	- Touchet, Tucannon, and Palouse Drainages
East Slope Cascades	- Yakima, Wenatchee, and Chelan Drainages
North Central Washington	- Methow and Okanogan Drainages
Northwest Slope Cascades	- Puget Sound Drainages
Southwest Slope Cascades	- Lower Columbia Drainages

1/ - Preliminary analysis by National Weather Service from data furnished by Meteorological Services of Canada and the National Weather Service.
2/ - Departure from 15-year (1958-1972) drainage division average.

SNOW DATA TO MAY 1, 1985 - APPENDIX 1

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Number	Elevation				Last Year	Average

UPPER COLUMBIA DRAINAGE

PEND OREILLE RIVER

Benton Meadow	16A02	2344	5/01	0	0.0	0.0	4.9
Benton Spring	16A03	4900	5/01	30	13.9	12.8	15.6
Boyer Mtn	17A02	5250	4/29	54	23.0	26.5	24.9
Bunchgrass Meadow	17A01	5000	4/30	53	25.4	28.2	29.0
Chewelah	17A04	4925	NO REPORT				
Hoodoo Basin	15C10	6000	4/29	112	52.9	42.8	54.5
Hoodoo Creek	15C01	5900	4/29	99	44.4	39.4	50.7
Lookout	15B02	5250	4/30	68	34.6	23.8	33.7
Nelson	2D04CA	3050	NO REPORT			2.2	7.0
Schweitzer Bowl	16A06	4500	4/29	46	22.3	20.3	23.7
Schweitzer Ridge	16A05	6100	4/29	89	41.4	43.6	47.8

KETTLE RIVER

Barnes Creek	2B06CA	5300	4/29	46	18.5	20.9	20.7
Big White Mtn.	2E03CA	5500	NO REPORT			21.8	21.1
Butte Creek	18A03	4070	"				
Carmi	2E02CA	4100	"				2.0
Farron #1	2B02CA	4000	"				9.4
Farron #2	2B02ACA	4000	"				9.2
Goat Creek	18A04	3595	"				0.0
Monashee Pass	2E01CA	4500	4/29	32	11.1	12.5	12.8
Summit G.S.	18A05	2150	NO REPORT				5.8
Trapping Creek Lower	2E05CA	3050	"			0.0	0.0
Trapping Creek Upper	2E04CA	4450	"			4.3	6.0

COLVILLE RIVER

Baird	17A06	3215	NO REPORT				
Chewelah	17A04	4925	"				
Togo	18A10	3370	"				

OMAK LAKE, TWIN LAKES

Mission	19A11	1150	NO REPORT				
Mount Tolman	18A12	2000	"				
Twin Lake	18A11	2700	"				

Average based on 1961-1980 averages
sp SNOTEL data

SNOW DATA TO MAY 1, 1985 - APPENDIX 2

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Number	Elevation				Last Year	Average *

SPOKANE RIVER

Above Burke	15B08	4100	4/30	40	18.2	9.8	19.9
4th of July Summit	16B03	3100	NO REPORT		0.0	0.0	0.0
Lookout	15B02	5250	4/30	68	34.6	23.8	33.7
Lost lake	15B14A	6000	4/29	128	61.4	46.2	59.1
Mosquito Ridge	16A04	5110	NO REPORT				
Sherwin	16C01	3200	4/29		9.1E	1.4	5.5
Sunset	15B09A	5600	5/01		33.7SP		

NEWMAN LAKE

Ragged Ridge	17B02	3333	4/15	0	0.0	0	New
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OKANOGAN RIVER

Aberdeen Lake	1F01CA	4300	NO REPORT			0.3	1.7
Blackwall Peak	2G03CA	6250	4/29	76	31.0	25.0	37.8
Brenda Mine	2F18CA	4800	4/29	33	11.5		9.9
Brookmere	1C01CA	3200	NO REPORT			0.0	5.6
Enderby	1F04CA	6250	4/30	96	39.4	45.7	42.3
Esperon Creek Lower	2F15CA	4400	NO REPORT				9.3
Esperon Creek Middle	2F15CA	4700	"				12.3
Esperon Creek Upper	2F13CA	5400	"				18.1
Grayback Reservoir	2F08CA	5225	4/30	21	6.4	9.8	8.0
Hamilton Hill	2G06CA	4900	4/29	29	11.0	6.3	13.2
Harts Pass	20A05A	6500	4/29	88	35.7	37.0	48.9
Isintok Lake	2F11CA	6300	4/28	13	4.3	5.1	7.1
Lost Horse Mountain	2G04CA	7000	NO REPORT				10.5
McCulloch	2F03CA	4200	4/29	0	0.0	.4	2.7
Missezula Mtn.	2G05CA	5100	4/28	22	8.3	4.3	6.0
Mission Creek	2F05CA	6000	NO REPORT				21.7
Monashee Pass	2E01CA	4500	4/29	32	11.1	12.5	12.8
Mount Kobau	2F12CA	5960	4/27	37	12.9	16.9	12.8

Average based on 1961-1980 averages
s SNOTEL data

SNOW DATA TO MAY 1, 1985 - APPENDIX 3

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Number	Elevation				Last Year	Average *

OKANOGAN RIVER (CONT.)

Mutton Creek No. 1	19A01	5700	4/30	0	0.0		11.8
Mutton Creek No.2 SP	19A11	6000	NO REPORT				New
Nickel Plate	2G02CAN	6200	"			8.0	8.1
Oyama Lake	2F19CAN	4400	4/28	9	2.9	3.1	3.1
Postill Lake	2F07CAN	4500	4/30	15	4.7	6.8	6.6
Rusty Creek	19A03	4000	4/30	0	0.0	0.0	0.7
Salmon Meadows	19A02	4500	4/30	0	0.0		5.0
Silver Star Mountain	2F10CAN	6050	4/28	67	28.1	30.7	28.3
Summerland Reservoir	2F02CAN	4200	4/28	17	5.5	5.9	5.8
Sunday Summit	2G01CAN	4300	4/30	0	0.0	.0	1.1
Trout Creek	2F01CAN	4700	4/28	14	4.3	1.6	5.2
Vaseux Creek	2F20CAN	4600	4/29	7	2.4	6.4	2.5
White Rocks Mountain	2F09CAN	6000	4/29	51	20.8	23.4	24.8

METHOW RIVER

Harts Pass	20A05A	6500	4/29	88	35.7	37.0	48.9
Mutton Creek No. 1	19A01	5700	4/30	0	0.0		10.1
Mutton Creek No. 2 SP	19A11	6000	Not Measured				12.4
Rusty Creek	19A03	4000	4/30	0	0.0	0.0	.7
Salmon Meadows	19A02	4500	4/30	0	0.0		5.0

CHELAN LAKE BASIN

Cloudy Pass +	20A22	6500	NO REPORT				35.2
Little Meadows +	20A24a	5275	"				37.6
Lyman Lake	20A23	5900	5/01		51.9SP		82.0
Mirror Lake	30A39	5600	5/01		25.9SP		
Park Creek Ridge	20A12	4600	5/01		33.3SP		31.7
Rainy Pass	20A09	4780	4/30	76	32.4	33.0	43.1

Average based on 1961-1980 averages

+ Aerial stadia observation

sp SNOTEL data

SNOW DATA TO MAY 1, 1985 - APPENDIX 4

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Number	Elevation				Last Year	Average *

ENTIAT RIVER

Brief	20B19	1600	4/29	0	0	0	.0
Entiat Meadows +	20A33	4540	NO REPORT			27.1	35.7
Entiat River Trail +	20A34	3325	"			5.0	9.1
Fox Camp +	20A36	6510	"			60.7	62.9
Pope Ridge	20B20	3450	4/29	11	4.6		9.4
Pugh Ridge +	20A32	6725	NO REPORT			30.8	37.9
Shady Pass	20A37	6200	4/29	40	18.7	25.6	30.3
Snow Brushy +	20A35	3910	NO REPORT			27.7	28.0
Tommy Creek +	20B21	4900	"			14.5	20.2

WENATCHEE RIVER

Berne Mill Creek	21B23	3170	4/29	51	21.8	7.0	21.8
Berne Mill Creek SP	21B41	3240	4/29	27	11.8	7.0	17.7
Blewett Pass No. 2	20B02	4270	5/01	0	0.0	7.3	9.6
Chiwaukum G. S.	20B16	1810	4/29	0	0.0	0	1.5
Lake Wenatchee	20B05	1970	Watershed Logged Discontinued				
Lyman Lake	20A23	5900	5/01		51.9SP		82.0
Merritt	20B18	2140	4/29	0	0.0	0.0	5.5
Stevens Pass	21B01	4070	4/29	98	45.8	41.5	54.3
Stevens Pass Sand Shed	21B45	3700	4/29	57	26.5	22.7	34.5

COLOCKUM CREEK

Trough #2(SP)	20B25	5310	5/01		0.0sp	2.3	6.9
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+ Aerial stadia observation

Average based on 1961-1980 averages

sp SNOTEL data

SNOW DATA TO MAY 1 , 1985 - APPENDIX 5

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Number	Elevation				Last Year	Average *

SQUILCHUCK CREEK

Beehive Springs	20B03	4400	NO REPORT			0.0	1.8
Scout-a-Vista	20B04	3400	"				

STEMILT CREEK

Stimelt Slide	20B06	5000	NO REPORT			2.7	6.8
Upper Wheeler	20B07	4400	"			8.4	1.0

YAKIMA RIVER

Ahtanum R.S.	21C11	3100	4/25	0	0.0	0.0	0.0
Big Boulder Creek	21B09	3200	4/30	16	7.5	8.5	9.1
Blewet Pass No. 2	20B02	4270	5/01	0	0.0	6.3	9.6
Bumping Lake Old	21C08	3450	4/26	20	7.6	3.2	9.0
Bumping Lake New	21C36	3400	4/26	31	12.0	8.4	13.6
Cayuse Pass	21C06	5300	NO REPORT			83.0	90.6
Colockum Pass	20B09	5370	"				14.2
Corral Pass	21B13	6000	"				37.7
Fish Lake	21B04	3371	4/30	41	19.0	19.8	26.4
Green Lake	21C10	6000	NO REPORT				
Grouse Camp	20B11	5385	"				17.1
Lake Cle Elum	21B14	2200	"				
Morse Lake	21C17	5400	"				60.9
Olallie Meadows	21B02	3625	4/30	90	43.5	30.2	50.1
Stampede Pass	21B10	3860	NO REPORT			48.0	41.2
Tunnel Avenue	21B08	2450	4/29	31	14.0	3.7	15.4
White Pass E. Side	21C28	4500	4/25	57	19.0	23.4	26.1

Average based on 1961-1980 averages
 sp SNOTEL Reading

SNOW DATA TO MAY 1, 1985 - APPENDIX 6

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Number	Elevation				Last Year	Average

AHTANUM CREEK

Ahtanum R. S.	21C11	3100	4/25	0	0.0	3.2	5.8
Green Lake	21C10	6000	5/01		12.3sp	34.8	

LOWER COLUMBIA DRAINAGEMILL CREEK

High Ridge SP	18D19	4890	4/30	38	19.5	0.0	
Touchet # 2 SP	17C55	5530	4/26	76	33.0		

COWLITZ RIVER

Cayuse Pass	21C06	5300	NO REPORT			83.0	90.6
White Pass E. Side	21C28	4500	4/25	57	19.0	23.4	26.1

PUGET SOUND DRAINAGEWHITE RIVER

Cayuse Pass	21C06	5300	NO REPORT			83.0	90.6
Corral Pass	21B13	6000	"				37.7
Morse Lake	21C17	5400	"				60.9

GREEN RIVER

Airstrip	21B24	1800	5/02	0	0.0		
Charley Creek	21B25	1200	5/02	0	0.0	0.0	0.0
Cougar Mountain	21B42	3200	5/01		20.4sp		16.4
Grass Mtn. No. 2	21B27	2900	5/02	24	9.4	1.1	2.1
Grass Mtn. No. 3	21B28	2100	5/02	0	0	0.0	0.0
Lester Creek	21B29	3100	5/02	62	27.3	14.0	14.5
Lynn Lake	21B50	4000	5/02	58	29.9		3.2
Sawmill Ridge	21B31	4700	5/02	82	36.3	29.2	39.5
Stampede Pass	21B10	3860	5/01		50.0sp		41.2
Twin Camp	21C30	4100	5/02	49	24.7	17.8	13.5

Average based on 1961-1980 averages
sp SNOTEL Reading

SNOW DATA TO MAY 1, 1985 - APPENDIX 7

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
						Last Year	Average *
NAME	Number	Elevation					

SNOQUALMIE RIVER

Olallie Meadows	21B02	3960	4/30	90	43.5	30.2	50.1
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SKYKOMISH RIVER

Stevens Pass	21B01	4070	4/29	98	45.8	41.5	54.3
Stevens Pass Sand Shed	21B45	3700	4/29	57	26.5	22.7	34.5

SKAGI1 RIVER

Beaver Creek Trail	21A04	2200	4/30	5	2.5	0.0	5.5
Beaver Pass	21A01	3680	4/29	63	24.0	13.0	31.3
Brown Top Ridge	21A28	6000	4/29	126	53.8	53.2	67.5
Devils Park	20A04	5900	4/29	92	39.2	29.6	48.2
Freezeout Creek Trail	20A01	3500	4/29	22	7.0	1.1	8.4
Freezeout Meadow	20A38	5040	4/29	60	25.0	19.4	35.8
Granite Creek	21A29	3500	4/30	30	11.4	5.4	18.2
Harts Pass	20A05A	6500	4/29	88	35.7	37.0	48.9
Klesilkwa	3D03ACA	3710	4/29	17	7.0	0.0	7.2
Lightning Lake	3D02CAN	4000	4/29	29	9.8	5.9	11.5
Lyman Lake	20A23	5900	NO REPORT				82.0
Meadows Cabin	20A08	1900	4/30	0	0.0	0.0	1.5
New Hozomeen Lake	21A30	2800	4/29	14	4.0	0.0	7.8
Rainy Pass	20A09	4780	4/30	76	32.4	33.0	43.1
Thunder Basin	20A07	4200	4/30	55	19.8	10.2	24.3

Average based on 1961-1980 averages
sp SNOTEL data

SNOW DATA TO MAY 1, 1985 - APPENDIX 8

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Number	Elevation				Last Year	Average *

BAKER RIVER

Dock Butte +	20A11A	3800	4/30	150	81.0	58.0	74.1
Easy Pass +	21A07A	5200	4/30	207	97.0	74.0	91.2
Jasper Pass +	21A06A	5400	4/30	184	93.0	76.0	95.3
Martin Lake	21A09A	3600	4/30	168	91.0	68.0	81.0
Mt. Blum +	21A18A	5800	4/30	158	79.0	69.0	70.9
Rocky Creek	21A12A	2100	4/30	58	33.0	5.0	22.3
Schreibers Meadow	21A10A	3400	4/30	108	60.0	40.0	63.9
S.F. Thunder Creek +	21A14A	2200	4/30	0	0.0	0.0	1.5
Watson Lakes	21A08A	4500	4/30	158	79.0	55.0	73.2

OLYMPIC PENINSULA DRAINAGEDUNGENESS RIVER

Deer Park	23B04	5200	4/30	38	16.3	12.0	22.5
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MORSE CREEK

Cox Valley	23B14	4500	4/28	87	36.8	34.4	42.0
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ELWHA RIVER

Hurricane	23B03	4500	4/28	49	17.1	16.5	25.6
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WYNOOCHEE RIVER

Carrol Pass	23B15	3650	5/02	78	35.6		
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+ Aerial stadia observation

Average based on 1961-1980 average

SNOTEL READINGS, MAY 1, 1985 - APPENDIX 1

SNOW	DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
				Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
	NAME	Number	Elevation				Last Year	Average \bar{x}

PEND OREILLE RIVER

Bunchgrass Meadows	17A01	5000	04/15		24.0	30.7	
	GT		05/01	58	26.5		
			05/01		23.2	28.4	29.3

OKANOGAN & METHOW RIVERS

Harts Pass	20A05	6500	04/15		44.0	38.2	
	GT		05/01		45.7	39.9	41.8
Salmon Meadows	19A02	4500	04/15		3.7	19.9	
			05/01		0.0	14.6	14.1

CHELAN LAKE BASIN

Lyman Lake	20A23	5900	04/15		48.8	58.9	
	GT		05/01		51.9	68.9	68.7
Mirror Lake	20A39	5600	04/15		24.1	30.2	
	GT		05/01	25.9	32.2	31.8	
Park Creek Ridge	20A12	4600	04/15		33.9	35.6	
	GT		05/01		33.3	32.2	31.8
Rainy Pass	20A09	4780	04/15		36.2	34.4	
	GT		05/01		37.5	34.3	32.9

ENTIAT RIVER

Pope Ridge	20B20	3450	04/15		9.3	13.0	
	GT		04/29	10	4.8		
			05/01		4.2	6.9	6.7

WENATCHEE RIVER

Blewett Pass	20B02	4270	04/15		12.2	18.8	
	GT		05/01	10	4.6		
			05/01		6.8	12.8	10.2
Lyman Lake	20A23	5900	04/15		48.8	68.9	
	GT		05/01			51.9	68.8
68.7							
Stevens Pass	21B01	4070	04/15		39.5	39.7	
	GT		05/01		38.5	37.1	24.2
			05/01		1.0	2.7	
Trough # 2	20B25	5300	04/15				
	GT		05/01		0.0	0.4	8.8

GT = Ground Truth measurement at SNOTEL site

SNOTEL READINGS, MAY 1, 1985 - APPENDIX 2

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Number	Elevation				Last Year	Average *
<u>COLOCKUM CREEK</u>							
Trough # 2	20B25	5300	04/15		1.0	2.7	
	GT		05/01		0.0	0.4	8.8
<u>STEMILT CREEK</u>							
Upper Wheeler	20B07	4400	04/15		7.5	14.6	
	GT		05/01		2.5	9.3	14.6
<u>YAKIMA RIVER</u>							
Big Boulder Creek	21B09	3200	DISCONTINUED				
Bumping Ridge	21C38	4600	04/15		28.3	31.2	
	GT		05/01		28.0	30.6	16.7
Corral Pass	21B13	6000	04/15				
	GT		05/01				23.0
Fish Lake	21B04	3371	04/15		29.6	32.2	
	GT		05/01		30.2	29.2	19.8
Green Lake	21C10	6000	04/15		13.5	14.7	
	GT		05/01		12.3	20.8	28.5
Grouse Camp	20B11	5385	04/15		8.8.	19.8	
	GT		05/01		4.0	16.2	20.4
Morse Lake	21C17	5400	04/15		44.6	61.8	
			05/01		44.9	65.2	70.7
Sasse Ridge	21C40	4400	04/15				
	GT		04/30	66	29.0		
			05/01		26.1		
White Pass E. Side	21C28	4500	04/15		22.0	26.6	
	GT		05/01		22.5	26.8	25.5

GT = Ground Truth measurement at SNOTEL site

SNOTEL READINGS, MAY 1, 1985 - APPENDIX 3

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
NAME	Number	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
						Last Year	Average *

AHTANUM CREEK

Green Lake	21C10	6000	04/15		13.5	14.7	
	GT		05/01		12.3	20.9	28.5

TOUCHET RIVER

Touchet # 2	17C5	5530	04/15		36.4	31.7	
	GT		04/26	76	33.0		
			05/01		34.2	30.1	29.4

LEWIS RIVER

June Lake	22C09	3200	04/15		39.1		
	GT		05/01		36.8		
Lone Pine Shelter	21C26	3800	04/15		39.6	40.0	
	GT		05/01		28.3	39.8	40.3
Plains of Abraham	22C01	4400	04/15		86.6	94.7	
			05/01		91.6	99.6	53.5
Sheep Canyon	22C10	4050	04/15		44.5	49.8	
			04/30		49.1	42.4	58.2
Spencer Meadow	21C20	3400	04/15			25.1	
			05/01				22.6
Surprise Lake	21C13	4250	04/15			59.6	
	GT		05/01		50.2	58.0	58.2

COWLITZ RIVER

Pigtail Peak	21C33	5900	04/15		46.5	49.7	
	GT		05/01		49.9	51.0	46.1
Potato Hill	21C14	4500	04/15		27.5	22.4	
	GT		05/01		25.5	20.5	20.5
Sheep Canyon	22C10	4050	04/15		44.5	49.8	
			04/30		49.1	42.4	58.2
Strawberry Landing	22C08	3280	04/15		61.2		
	GT		05/01		53.8		38.3
Steppes PC	22C11		04/15			69.7	
Spirit PC	22C12		04/15		0.0	.6	
			05/01		0.0	0.0	

GT = Ground Truth measurement at SNOTEL sites

SNOTEL READINGS, MAY 1, 1985 - APPENDIX 4

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Number	Elevation				Last Year	Average

NISQUALLY RIVER

Paradise Park	21C35	5500	04/15		69.9	18.0	
			05/01		74.7		28.5

WHITE RIVER

Corral Pass	21B13	6000	04/15				
	GT		05/05				23.2
Morse Lake	21C17	5400	04/15		44.6	61.8	
	GT		05/01		44.9	63.2	70.7

GREEN RIVER

Cougar Mountain	21B42	3200	04/15		22.2	19.1	
	GT		05/01		20.4	16.1	13.3
Stampede Pass	21B10	3960	04/15		46.9	48.0	
	GT		05/01		50.0	46.8	32.1

SNOQUALMIE RIVER

Olallie Meadows East	21B55	3960	04/15		66.1	57.4	
			05/01		69.2	56.3	51.4

GT = Ground Truth measurements at SNOTEL sites